Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Global Crossing Limited and Level 3 Communications, Inc., Application for Consent to Transfer Control of Authority to Provide Global Facilities-Based and Global Resale International Telecommunications Services and of Domestic Common Carrier Transmission Lines, Pursuant to Section 214 of the Communications Act, as Amended	)	IB Docket No. 11-78
	)	
Level 3 Communications, Inc., Petition for Declaratory Ruling Under Section 310(b)(4) Of the Communications Act of 1934, as Amended	)	

DECLARATION OF RANDOLPH NICKLAS

1. My name is Randolph Nicklas. I am the Chief Technology Officer (CTO) for XO Communications, LLC (XO). My business address is 13865 Sunrise Valley Drive, Herndon, VA 20171.

2. As CTO, I am responsible for the technology and design of the company's voice, data and transport network platforms. I also advise the company on the overall design and technical aspects of XO's commercial and wholesale voice, data and IP-based services. I have been employed at XO since 1999, previously as Vice President of Engineering, where I was responsible for the design, implementation, and sustaining engineering of XO's transport, voice and data network platforms. Before joining XO, I held engineering and technical management positions at Intelsat, Cisco, and MCI. I have practiced as an engineer for 26 years and have been involved in the telecommunications industry since 1991. I hold a Bachelors of Science and a

Masters of Science in Applied Mathematics and a Masters of Science in Physics, all from the Georgia Institute of Technology.

3. XO is a leading nationwide provider of advanced broadband communications services and solutions for businesses, enterprises, government, carriers and service providers. Its customers include more than half of the Fortune 500**,** in addition to leading cable companies, carriers, content providers and mobile network operators. Utilizing its unique combination of high-capacity nationwide and metro networks and broadband wireless capabilities, XO offers customers a broad range of managed voice, data and IP services with proven performance, scalability and value in more than 75 metropolitan markets across the United States. XO has more than 1.1 million miles of total route fiber and more than 3,100 on-net fiber lit buildings. XO owns 16,000 fiber route miles of transmission facilities in the U.S. XO does not own any transmission facilities outside of the U.S., although it offers global connectivity through leased facilities and capacity, including non-U.S. capacity it leases from Level 3 Communications, Inc. (Level 3) and Global Crossing Limited (Global Crossing).

4. XO is a Tier 1 Internet Backbone Peer. It has peering node locations in 10 markets in the United States, 4 in Europe, and 1 in Asia. XO plans to extend its leased network footprint in Europe and expand into Asia as business conditions warrant.

5. The Internet can be viewed as a confederation of service provider networks that exchange traffic voluntarily and where connectivity changes over time. These service provider networks range from educational institutions to Internet service providers to national governments and large scale multi-service telecommunications service providers. The one attribute that each of these network participants in the Internet have in common is that they each control their own network. Because of this, each one is called an autonomous system (AS).

These autonomous systems then make agreements with each other in an effort to interconnect and exchange traffic in accordance with each AS's goals. It is important to note that there is no central organizing authority – companies come and go, agreements get made and are broken, and almost none of these activities require the imprimatur of an authority other than the entities making the connection agreements. While there are organizations that attempt to coordinate network activity, they generally restrict themselves to handing out blocks of IP addresses and autonomous system numbers to the AS's that require them.

6. The AS graph is a representation of which networks connect to each other, which makes it a technical, economic and political graph of the Internet. The AS graph shows how traffic could potentially flow. If there is a de-peering event and traffic stops, the AS graph would show a loss of connectivity for the sub-tending AS's that are single-homed. To be single-homed is to have only one service provider that provides connectivity to the Internet.

7. At the top of the Internet AS graph, providing global connectivity for all AS's, are the Tier I Internet backbone providers (IBPs), which rely exclusively on peering for exchanging traffic and do not purchase transit. They alone, even today, ensure that all routes are covered efficiently. As such, there is no substitute for them. As noted earlier, XO is a Tier 1 provider. So too are Level 3 and Global Crossing.

8. If a Tier 1 network provider does not have a peering arrangement with another Tier 1 network provider, the customers of these network providers will be unable to communicate with each other (unless they pay to transit through other providers). In the absence of a complete set of peering arrangements, customers of these network providers will be unable to communicate if they are connected to only one Internet service provider (single-homed). A customer that is multi-homed to a Tier 1 network provider that does not peer with another Tier 1

network provider will be able to communicate with the customers of the destination Tier 1 provider since the multi-homed customer is connected to another Internet service provider (assuming that such provider has either a transit or a peering relationship with the destination Tier 1 provider).

9. Entry into the Tier 1 Internet backbone market is difficult, if not impossible. To operate as a peer, an IBP must demonstrate comparable traffic throughput, flows and geographic scope, none of which is easy to obtain. Further, existing Tier 1 IBPs are not interested in offering settlement-free interconnection to would be Tier 1 IBPs, and there is no incentive for them to do so.

10. Level 3 and Global Crossing are the two largest Tier 1 IBPs in the world. They carry more traffic on the Internet backbone that is "on-net" than any of the other Tier 1 IBPs, and they have more unique routes. Level 3 and Global Crossing also are the two largest global transit providers. The disparity in the amount of traffic carried over the Level 3 and Global Crossing networks overall compared to other networks is significant. The disparity in the U.S. is greater than it is in the rest of world.

11. A decade ago, Level 3 did not engage in or instigate de-peering events. It was only after Level 3 grew sufficiently and became disproportionately larger than virtually all other Tier 1 IBPs that it started initiating de-peering events.

12. XO peered settlement-free with Level 3 from 2001 until 2005. In September 2005, Level 3 approached XO and demanded payment for carrying XO's traffic. Level 3 never explained the reasons for their demand for payment, relying instead on a termination for convenience clause in the bilateral settlement-free traffic exchange agreement then in effect. I note that when XO and Level 3 commenced peering in 2001, XO and Level 3

were comparable in terms of network extent, cross-sectional bandwidth, and number of customers. However, between 2001 and September 2005, Level 3 acquired various other Internet backbone providers. As such, by September 2005, the Level 3 Internet backbone had grown significantly when compared to the growth of the XO Internet backbone, in terms of customers and originated address space.

13. In response to Level 3's request to unilaterally terminate the XO-Level 3 settlement-free peering agreement, XO and Level 3 held a series of phone conferences and e-mail exchanges on the topic of traffic exchange. Throughout these discussions, XO maintained its position that the peering exchange agreement in place was and would continue to be mutually beneficial to both XO and Level 3 and their respective customer bases. Level 3 was never able to describe their reasons for changing from settlement-free traffic exchange to a situation where XO would either disconnect from Level 3 or XO would pay Level 3 their stipulated rate to maintain the direct exchange of traffic between major IBPs that is essential to the functioning of the Internet and of mutual benefit to both parties. Despite XO's repeated efforts to resolve the matter in an amiable fashion, Level 3 broke off the peering link and ceased peering with XO on September 27, 2005 at midnight. XO never received a final notice of peering termination, and maintained throughout the period of discussion that Level 3's actions were egregiously unwarranted. Upon termination of connectivity to Level 3, approximately 15% of XO's off-net Internet traffic was impaired, and hundreds of customer trouble tickets were opened by XO customer care. Because of the criticality of XO's Internet service to its customers, XO yielded after several hours of de-peering to Level 3's unilateral demand for payment for the direct exchange of customer traffic (paid peering). Level 3 finally reestablished the peering links at 6:30 am the next morning, restoring full Internet service between XO and Level 3. By Level 3's

own admission, approximately a dozen Internet Service Providers were de-peered by Level 3 in 2005.

14. In de-peering XO, Level 3 wreaked havoc on the business and operations of many of XO's customers. Level 3's unilateral actions disconnected these customers, totaling more than 30,000 in September 2005 from a significant portion of the Internet – the portion of the Internet served by Level 3 – for 6.5 hours. The types of customers impacted, or who would have been impacted if the XO-Level 3 disconnection had continued, include school systems, agencies of the federal government such as the EPA, financial Services companies such as Comstock, and tens of thousands of small to medium businesses employing more than one hundred thousand Americans across a myriad of industries. For all of these customers, connection to the Internet is critical to the success of their operations.

15. Level 3 has shown XO that if it has a size or market share advantage over XO, it will not hesitate to hold XO's customers hostage to pressure XO into paying for peering, partial-transit, or full-transit. The merger of Level 3 and Global Crossing will create a global Tier 1 provider with substantially greater market share than other IBPs. As such, Level 3 will have a much greater incentive to once again de-peer XO to extract additional payments and to end XO's current settlement-free peering relationship with Global Crossing, to the detriment of XO's current and potential customers. As in 2006, XO's customer base includes many government customers and commercial customers in critical industries, including but not limited to: Mt. Sinai School of Medicine, Kootenai Medical Center, Intermountain Health Care, Detroit Medical Center, Cedars-Sinai Health Systems, Grady Memorial Hospital, California Transplant Donor Network, Radiological Society of America, Methodist Hospital of Memphis, and other major healthcare corporations; the US Postal Service, the Port of Long Beach, the Port of Los

Angeles, California Department of Transportation, the State of Utah, the State of Delaware, the City of Marietta, GA, and other government agencies; the Philadelphia Public School System, St. Louis University, University of Memphis, Loyola University of Chicago, Fordham University, and many other educational organizations; XM Satellite, Gannet Co., The Seattle Times, Disney Online, HBO, Turner Broadcasting, and other media and entertainment corporations; Caribou Coffee Company, Autozone, Abercrombie & Fitch, McDonalds and other retail chains; Cbeyond, T-Mobile, Verizon Wireless, Alaska Communications, and many other communications service providers; Wells Rural Electric Company, Southern California Edison, Bristol Virginia Utilities, and other utility corporations; and The Church of Jesus Christ of Latter Day Saints and many other religious organizations. As was the case in 2005, a Level 3/Global Crossing de-peering of XO will impact tens of thousands of Internet attached business and hundreds of thousands of Americans.

16. In my view, a combined Level 3-Global Crossing threatens more than just XO. If permitted to merge, the combined Level 3-Global Crossing will be the largest Tier 1 carrier in the world and disproportionately so. Level 3 will have an incentive to de-peer every other Tier 1 network provider.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct to the best of my information and belief.

Executed on 11th July, 2011

/S/_____

Randolph Nicklas